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WiMAX Modem Application for BreezeMAX™ TDD

Operator Manual

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About This Manual

This manual describes the WiMAX Modem Application, how to install it, and how to customize it to the operator's needs. The manual is intended for the operator, to help him prepare the installation package.

The manual covers the following options:

- Preparing the installation kit:
  - Creating and editing configuration files, Section 2.1
  - Localizing the application, Section 2.2
  - Hiding and displaying information, Section 2.3
  - Setting automatic updates, Section 2.4
  - Changing the logo and color scheme, Section 2.5
  - Packing the configuration files, Section 2.6
- Installing and uninstalling the WiMAX Modem application, Section 4
- Using the WiMAX Modem Management application, Section 5
- Troubleshooting, Section 6

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1. Introduction

The WiMAX Modem Application guides the user through the installation and configuration of the WiMAX Modem. It also enables the user to change the modem's configuration as necessary and monitor the quality of the link.

The supplied installation kit includes all the files necessary for the installation of the WiMAX Modem and the WiMAX Modem Application. A single configuration file with default settings is included in the kit to serve as a template. The operator should create as many configuration files as necessary, according to the network requirements.

The application can be customized according to the operator's needs. Customization is done on the installation files and requires the operator to prepare the installation kit prior to sending to the end-user.

2. Preparing the Installation Kit

The following can be customized in the application to meet the operator's needs:

- The WiMAX Modem Application comes with a sample configuration file. New configuration files according to the network requirements need to be created and inserted within the WiMAX Modem Application package. See Section 2.1.
- Localization - The WiMAX Modem Application has built-in localization support. See Section 2.2.
- Updates - The WiMAX Modem Application checks for updates every time it is accessed. See Section 2.4.
- Display Customization - See Section 2.3.
- Changing the logo and color scheme - See Section 2.5.

Customization is done on the files in the installation kit. To customize the application to your needs, you will need to unpack and pack CAB files in the application's installation package.

NOTE

You can download CabPack, a free Cabinet Manager application from http://www.larshederer.homepage.t-online.de/english.htm

2.1 Working with Configuration Files

Configuration files are ASCII text files that contain settings for many of the Si CPE configuration parameters. You can customize your own set of configuration files according to your specific needs.

A sample configuration file is provided with the WiMAX Modem Application.

2.1.1 Accessing the Configuration Files

To access the sample configuration file:

1. In the WiMAX Modem installation kit, open the *Setup* folder.
2. Unpack the *html.cab* file.
3. Within the unpacked html.cab file, go to *Homelan* > *Config* > *WiMAX* > *Location.*
4. Open the `Location1.cfg` file with any text editor.

2.1.2 Creating Configuration Files

To create a new configuration file:

1. Open the sample configuration file in any ASCII text editor and change the values of the listed parameters, as required. After each value, enter a semicolon (;) to indicate the end of the value. Any text after the semicolon is disregarded by the application.

IMPORTANT

As the configuration file is an ASCII text file, any value can be entered for the parameters. However, for the Si CPE to function properly, only values that are recognized by it must be entered for each parameter. Follow the guidelines described below and in the *CPEs Product Manual*.

Parameter	Description
FILE_STAMP	An obligatory header stamp that identifies the configuration files. Without it, the application will not recognize the file as a valid configuration file and automatic configuration for the set of parameters listed in it will not be possible.

Parameter	Description
TDD Base Station ID	The BST/AU ID used together with the BST/AU ID Mask to define the range of BSTs/AUs that can synchronize with the unit. The BST/AU ID comprises 6 groups of up to 3 digits each, where the range of each group is 0 to 255. The first 3 groups form the Operator ID. The next 2 groups form the Cell ID, and the last group forms the Sector ID. The groups of digits are separated by a white space. The default TDD Base Station ID is 186.190.0.0.250.206
TDD Base Station ID Mask	The BST/AU ID Mask comprises 6 groups of up to 3 digits each, where the range of each group is 0 to 255. The first 3 groups form the mask for the Operator ID. The next 2 groups form the mask for the Cell ID, and the last group forms the mask for the Sector ID. The groups of digits are separated by a white space. The default TDD Base Station ID Mask is 255.255.255.0.0.0.
NSP_location	The location(s) that the parameters cover. The auto configuration of the Si CPE will be done according to the selected location. You can enter several locations, separated by commas, to create a list of locations that will load the same configuration set to the WiMAX modem.
Organization	Optional. According to administrator policy. The name of the organization (customer) using the unit. The Organization name can include up to 32 printable characters. The default Organization name is an empty string (no Organization name).
Address	Optional. According to administrator policy. The address at which the unit is located. The Address can include up to 32 printable characters. The default Address is an empty string (no address).

Parameter	Description
Country	Optional. According to administrator policy. The name of the country where the unit is located. The Country name can include up to 12 printable characters. The default Country name is an empty string (no Country name).
Best AU Option	The Best AU Option allows enabling or disabling the Best BST/AU feature in the SU. When disabled, the SU will start scanning and select the first found AU. Enter one of the following values: 0 = Enable 1 = Disable The default option is 0 (Disable).
Preferred AU ID	The BST/AU ID used together with the BST/AU ID Mask to define the range of BSTs/AUs that can synchronize with the SU. The Preferred BST/AU ID consists of 6 groups of up to 3 digits each, where the range of each group is 0 to 255. The first 3 groups form the base ID for the Operator ID. The next 2 groups form the base ID for the Cell ID, and the last group forms the base ID for the Sector ID. The groups of digits are separated by a white space. The Preferred BST/AU ID must be in the range defined by the BST/AU ID and the BST/AU ID Mask.
Preferred AU Mask	The BST/AU ID Mask used together with the BST/AU ID to define the range of BSTs/AUs that can synchronize with the SU. The Preferred BST/AU ID Mask consists of 6 groups of up to 3 digits each, where the range of each group is 0 to 255. The first 3 groups form the mask for the Operator ID. The next 2 groups form the mask for the Cell ID, and the last group forms the mask for the Sector ID. The groups of digits are separated by a white space.

Parameter	Description
TDD Bandwidth	Defines the bandwidth of the signal. Enter a value from 0 to 4, as follows: 0 = 1.75 MHz 1 = 3.5 MHz 2 = 5 MHz 3 = 7 MHz 4 = 10 MHz In the current version, only 3.5 MHz and 5 MHz are supported.
Scanning Start Frequency	The lowest frequency in the range of frequencies to be scanned.
Scanning Stop Frequency	The highest frequency in the range of frequencies to be scanned.
Scanning Steps Bitmap	The 8 Bits that define the intermediate scanning steps. Enter a value of 1-8. Refer to the *CPEs Product Manual* for more details.
Scanning Discrete Frequencies	Enables to define up to 10 discrete frequencies (separated by a white space) to be used in the scanning process in addition to the frequencies defined by the Frequency Scanning parameters. If you enter a single discrete frequency, it will overwrite only the discrete frequency in the corresponding slot in the Si CPE. To overwrite all discrete frequencies, enter a 0 for each frequency slot.
Scanning Main Steps	The Main Scanning Step, that together with the Intermediate Scanning Steps define the frequencies to be scanned between the Start and End Frequencies.
User Name	The user name, to be used for service provisioning.
Password	The user password.
Antenna Select	Enables selection of either an internal antenna, an external (detached) antenna or automatic antenna selection, as follows: 1-6 = one of six internal antennas 7 = External (detached) antenna 8 = Automatic antenna selection The default is internal antenna 3 (opposite to the connectors' side).

NOTE

The configuration file has the ability to change the parameters settings in the Si CPE. It cannot delete or add parameters. If a parameter in the configuration file is left empty, or is deleted, or a value outside the valid range is entered, the default value set in the unit will not be changed.

2 Save As a new file with the extension *.cfg*.

2.2 Localization

The WiMAX Modem Application has built-in localization support. During installation, the user is prompted to select a language. All configuration windows and the application's windows will display text in the selected language. This section describes how the operator can adapt the application to the local language(s) used in his region and set a default language.

Before you can access the files for translation, you need to unpack the *html.cab* file (see Section 2.1.1).

Localization is achieved in the following steps (the order of which is not important):

1 Creating the list of supported languages.

2 Setting the default language.

3 Adding a language.

4 Removing a language.

5 Translating the WiMAX Modem Management application windows.

After translating all the necessary files, you need to re-pack the *html.cab* file (see Section 2.6).

2.2.1 Creating the List of Supported Languages

During installation, the user is prompted to select a language for the application. The list of supported languages is compiled in an editable .ini file.

NOTE

The application is supplied with English support only.

To edit the list of supported languages:

1 In the WiMAX Modem installation kit, open the *Setup* folder.

2 Open the *SetupDefs.ini* file using any text editor.

3 Scroll down to the [LanguageList] at the bottom of the file. The default language list is as follows:

```
[LanguageList]
DefaultLanguage=English
LanguageName1=English
LanguageID1=0009
LanguageName2=French
LanguageID2=0012
```

The Language List within the *SetupDefs.ini* file includes the following information:

Parameter	Description
DefaultLanguage	The default language to be used.
LanguageName1, LanguageName2	The name of the first/second language. The number reflects the language's position in the list. Any language added to the list will receive the next consecutive number.
LanguageID1, LanguageID2	The ID associated with LanguageName1/2 respectively. Any number can be selected for any language. By default, 0009 is associated with English, and 0012 with French. The ID number is used in the folder name of all .ini files associated with the language, and in the name of the XML file conaining all the language's text. To avoid clashes with other defined IDs, it is recommended to use a four digit ID for , beginning with a zero (0).

2.2.2 Setting the Default Language

The default language sets the language for the installation of the WiMAX Modem Application. All installation windows will reflect the default language selected.

To change the default language:

1 In the *SetupDefs.ini* file, scroll down to the Language List at the end of the file and locate the following line:
`DefaultLanguage=English`

2 Change the value of this parameter to any of the available language names on the list.

3 Save the *SetupDefs.ini* file.

2.2.3 Adding a Language

To add a language:

1 In the *SetupDefs.ini* file, add the following pair of lines at the end of the Language List:

```
LanguageName3=<language name>
LanguageID3=<language ID>
```

Substitute <language name> with an actual language (e.g., Italian) and <language ID> with any number (e.g., 0010).

NOTE

To avoid clashes with other defined IDs, it is recommended to use a four digit ID for , beginning with a zero (0).

Repeat this step for each added language.

NOTE

It is not important to use consecutive numbers for the different languages. However, make sure that the number you have chosen for a specific language name, matches the ID number. Otherwise, the language will not appear in the displayed list.

2 Save and close the *SetupDefs.ini* file. In the next installation, the new language will appear on the list. At this stage, however, there are no files associated with the new language.

3 Copy the following folders located in the opened *html.cab* file:

- *Homelan**UI_0009**. Rename the new folder *UI_0010* (replace 0010 with the actual language ID).
- *Homelan**Config**WiMAX**UI_0009**. Rename the new folder *UI_0010* (replace 0010 with the actual language ID).
- *Main**xml**0009.xml*. Rename the new file *0010.xml* (replace 0010 with the actual language ID).

4 Proceed to translate the files (see Section 2.2.6).

2.2.4 Removing a Language

1 In the *SetupDefs.ini* file, scroll down to the of the file and delete the following lines from the Language List:

```
LanguageName#=<language name>
LanguageID#=<language ID>
```

where # stands for any of the numbers available on the list.

Repeat this step for each deleted language.

2 Save and close the *SetupDefs.ini* file. In the next installation, the deleted language(s) will not appear on the list.

3 You can optionally remove the folders containing the files associated with the deleted language, or you can leave them for future use. To remove the files, delete the following folders located in the open *html.cab* file:

- \Homelan\UI_<language ID>
- \Homelan\Config\WiMAX\UI_<language ID>
- \Main\xml\<language ID>.xml

2.2.5 Changing the Language's ID

Changing the ID number of an existing language requires searching and replacing all instances of the ID number in the setup folder.

To change the ID of an existing language:

1 In the *SetupDefs.ini* file, scroll down to the Language List at the end of the file and replace the <language ID> with a new value. For example, to change the default ID for French from 0012 to 0001, locate the following line:

```
LanguageID2=0012
```

and change the value from 0012 to 0001.

NOTE

To avoid clashes with other defined IDs, it is recommended to use a four digit ID for , beginning with a zero (0).

2 Save the *SetupDefs.ini* file.

3 In the unpacked *html.cab* file rename the following items:

- *Homelan**UI_0012*\ rename the folder as UI_0001.
- *Homelan**Config**WiMAX**UI_0012*, rename the folder as UI_0001.
- *Main**xml**0012.xml*, rename the file as 0001.xml

2.2.6 GUI Translation

The WiMAX Modem Application's GUI is XML based. Translation of the text displayed on screen is done directly in the xml and ini files.

The relevant files/folders for translation are:

- *Homelan**UI_<language ID>***.ini* (located in the unpacked *html.cab* file) - includes the configuration windows that appear during installation.
- *Homelan**Config**WiMAX**UI_<language ID>***.ini* (located in the unpacked *html.cab* file) - includes the unit installation windows.
- *Main**xml**<language ID>.xml* (located in the unpacked *html.cab* file) - the GUI of the management application.

The above listed files include all GUI text, buttons, tabs, menus, messages, etc. You need to translate all of the relevant text in these files.

CAUTION

In ini files, be careful not to change the parameters' names, only their values. In xml files, do not change the parameters' ID. Changing the parameters names/IDs may be harmful to the operation of the application.

After completing the translation, re-pack the *html.cab* file (see Section 2.6).

2.3 Customizing the Display

The WiMAX Modem Application can be customized to hide/display information (relevant only to the Settings tab) and to disable changing the parameters' setting by making them Read-Only.

Two types of hiding methods are supported:

- Temporary - parameters and groups are hidden from the display, but can be revealed using the F3 function key and concealed again using the F4 function.
- Permanent - parameters, groups and tabs are hidden and cannot be revealed by the user.

The hiding of information (both temporary and permanent) is done via the *Settings.xml* file, located in the *Main\xml* folder in the unpacked *html.cab* file. For information on unpacking the *html.cab* file, see Section 2.1.1).

The structure of the *Settings.xml* file reflects the structure of the Settings window. The Settings tab has four sub-tabs, each displaying different information. Within each window, parameters appear in groups. Each individual parameter, or group, or the entire tab, can be hidden from the display.

The following is an example of the code for an entire tab in the Settings tab (the colors are for emphasis only, as they would appear in an Internet browser):

```
<tab id="1" name="1019" visible="1">
  <group title="1019_1" display="1">
    <parameter name="p1" getid="EWSUSRNAME" setid="EWSUSRNAME" type="text"
     display="1" hidden="true"></parameter>
    <parameter name="p2" getid="EWSUSRPASSWORD" setid="" type="text"
     display="1" hidden="true"></parameter>
  </group>

  <group title="1019_2" display="1">
    <parameter name="p3" getid="EWSCOMMNAME_ACTUAL"
     setid="EWSCOMMNAME_CONFIGURED" type="text" display="0"
     hidden="true"></parameter>
    <parameter name="p4" getid="EWSORGANIZATION" setid="EWSORGANIZATION"
     type="text" display="1" disabled="false" hidden="true"></parameter>
    <parameter name="p5" getid="EWSADDRESS" setid="EWSADDRESS" type="text"
     display="1" hidden="true"></parameter>
    <parameter name="p6" getid="EWSCOUNTRY" setid="EWSCOUNTRY" type="text"
     display="1" disabled="false" delete="false" hidden="true"></parameter>
  </group>
</tab>
```

Figure 1: Settings Tab - XML Code

The tab named 1019 is associated with the *User Information* tab and has to groups of parameters: 1019_1 (User Information) and 1019_2 (CPE Parameters). Each group includes a set of parameters. For example, the User Information group includes two parameters: User Name and Password.

In the example above, <tab...> denotes the beginning of a tab and </tab> denotes the end of the tab. Together, they form a complete tab. Similarly, <group title...> ... </group> is a complete group and <parameter...> </parameter> is a single parameter. The parameter's ID (e.g., p2) is associated with the label on screen. If you search for p2 in the <language ID>.xml file (see Section 2.2.6), you will find the association with the label "Password".

2.3.1 Temporary Hiding of Information

The temporary hiding of displayed information is supported in the Settings tab only and only to parameters and groups, not to entire tabs.

To hide individual parameters:

Locate the parameter you want to hide (you can search for the name of the parameter) and add the sequence: hidden="true". This means that when you open the application, the hidden parameter will not be displayed by default. Clicking on F3 will reveal the parameter and F4 will conceal it again.

hidden="true" can be added to the code of any parameter in the Settings tab.

To disable hiding, you need to delete the entire *hidden="true"* sequence.

NOTE

Changing the value of "hidden" from "true" to "false" will not disable the hiding feature.

To hide a group of parameters:

Hiding all the parameters within a group also hides the entire group (including its group label). The function key F3 will reveal the entire group and F4 will conceal it again.

2.3.2 Permanent Hiding of Information

The permanent hiding of displayed information is supported in the Settings tab only and applies to parameters, groups, and entire tabs.

NOTE

The Hiding of parameters is intended for the prevention of accidental configuration of the unit. It is not intended to substitute encryption or security. The xml files are not encrypted.

To permanently hide a parameter or group:

Locate the parameter/group you want to hide (you can search for the name of the parameter/group) and change the value of the sequence display="1" to zero

(display="0"). This means that when you open the application, the hidden parameter/group will not be displayed. This parameter/group cannot be revealed.

To enable the display of the hidden parameter/group, change the value back to "1".

To permanently hide a tab:

Locate the tab you want to hide and change the value of the sequence visible="1" to zero (visible="0"). This means that when you open the application, the hidden tab will not be displayed.

To enable the display of the hidden tab, change the value back to "1".

2.3.3 Read-Only Parameters

You can change editable parameters to read-only and vice versa in any of the application's windows.

To make parameters read-only:

1. Open the xml file that corresponds to the window where the parameter is located (e.g., Settings.xml).
2. In the xml file (see example in Figure 1), locate the parameter you want to make read-only and change the value of the string: disabled="false" to "true" (disabled="true"). This means that the parameter cannot be changed.
3. Save the xml file.

To enable changes again, change the value back to "false".

2.4 Editing the Update Files

The WiMAX Modem Application periodically checks for updates. The operator needs to perform the following in order to ensure smooth updates:

1. Edit the update files in the installation kit, that will direct the application to an HTTP server, where the update is stored. Described in this section.
2. Compile an update package with all the customized files into a single self-extracting executable file. This step must be performed for every new update. When creating the update package, the operator needs to decide whether this package will update only the WiMAX Modem Application, or

whether reconfiguration of the Si CPE is required as well. This will be crucial to the creation of the package. See Section 3.1.

3 Save the update package on the HTTP server. See Section 3.2.

Before you can access the update files, you need to unpack the *html.cab* file (see Section 2.1.1).

The following files are responsible for the update process:

File Name	Location	Description
FTUpdate.ini	Installation kit: <unpacked html.cab>\add-ons\	Contains the URL of the HTTP server where the update package is located. Also identifies the application's SW version.
FTAgent.xml	Installation kit: <unpacked html.cab>	Defines the intervals in which the application should check for updates.
FTUpdate.exe	Installation kit: <unpacked html.cab>\add-ons\	Executes the update. No editing required.
FTAgent.exe	Installation kit: <unpacked html.cab>	Runs the FTUpdate.exe. No editing required.
Update.ini	The operator's HTTP server	Defines which version to update to which version and identifies the update's executable file to run.
<Update file>.exe	The operator's HTTP server	The update's executable file.

To edit the files in the installation kit:

1 Within the unpacked *html.cab* file, open the *add-ons* > *FTUpdate.ini* file using any text editor.

a Change the URL in the following line to the actual URL and folder where the upgrade files are located:

UpgradeServer=http://example.com

b Note that in the [Version] section, the following line reflects the application's current SW version:

SettingsVer=1.0

NOTE

You can also change the message that will be displayed (for example, translate it to a different language).

c Save the *FTUpdate.ini* file.

2 Within the unpacked *html.cab* file, open the *FTAgent.xml* file.

a Change the frequency in which the application is to check for updates, as follows: change the value of the following string: Frequency="5d". Use the following legend to change the time unit: s=seconds, m=minutes, h=hours, d=days.

IMPORTANT

Do not change any of the other parameters.

b Save the *FTAgent.xml* file.

2.5 Changing the Displayed Logo

The operator can optionally change the logo with his own logo.

Before you can change the logo, you need to unpack the *html.cab* file (see Section 2.1.1).

To change the logo:

1 In the installation kit, search for all images (.bmp, .jpg, .gif). The following files include Alvarion's logo:

File Name	Location
setup logo.bmp	Setup
HL_bg.bmp	<unpacked html.cab> > Homelan > Bitmap
topbar.jpg	<unpacked html.cab> > Main > Images

2 Replace these files with your own images. The size of the new images should be identical to the size of the supplied images.

NOTE

You can also change the background and colour scheme by replacing the existing images in a similar manner. Make sure you maintain the size of the objects.

2.6 Packing the Configuration Files

All the location files must be packed in a single cab file. The WiMAX Modem Application will recognize the files as location files during installation.

To pack the configuration files:

1 Pack the configuration files in a single cab file. Name the file *html.cab*.

IMPORTANT

When packing the *cab* file, use the compression type MSZIP. Make sure that you exclude the folder in which the files are stored and that you maintain the folder structure, including subfolders.

2 Save the *html.cab* file in the *Setup* folder.

3. Preparing an Update Package

When a new version of the WiMAX Modem Application is released, the operator needs to generate an update package that the user can automatically download and install.

Each new version of the application is sent as an installation kit with sample location files and default parameters settings and languages. The operator needs to replace the default files with his own files (created for the installation kit for the end-user), as described in Section 2. After compiling all of the files with the new installation kit, the operator needs to generate a self-extracting executable file that will serve as the update package.

An additional file, *update.ini*, is sent with each new version (together with the installation kit). This file needs to be updated and saved on the operator's HTTP server.

The WiMAX Modem Application installed on the end-user's computer periodically checks for updates (in pre-specified intervals). If the application finds a new update package, a message is displayed to confirm or cancel the downloading of the update.

To facilitate the update process, it is good practice to keep a copy of your customized files in an accessible location and use a checklist to save these files in

their correct locations in the update packages. See Appendix A for a recommended checklist.

3.1 Creating the Executable File

To create an update package:

1. Replace the default configuration files (*Location1.cgf* and *Location2.cgf*) with all your configuration files (see Section 2.1).
2. If you have localized the application (see Section 2.2):
   a. Replace the default *SetupDefs.ini* file with your own file.
   b. Copy all the folders corresponding to the languages supported by your application (according to the Language ID) in the following locations:
      - Homelan\<Language ID>
      - Homelan\Config\WiMAX\<Language ID>
      - Main\xml\<Language ID>

CAUTION

If the update consists of changes in the parameters, copy the added information for each language and translate as necessary..

3. If you have customized the display (see Section 2.3), either replace the default *Settings.xml* file (located in the Main\xml folder) with your customized file, or customize again the default *Settings.xml* file provided with the update.

CAUTION

If the update consists of changes in the parameters, replacing the default file with your customized file will not reflect the changes introduced by the update. Copy any added information to your file, or customize the default file again.

4. Replace the default FTUpdate.ini and FTAgent.xml files with your customized files.
5. Use a self extract application to generate the self extracting executable update file. When generating the executable file:
   - In the program filename, enter Setup.exe.

- If you want to update the application without reconfiguring the unit, use the -update command line switch. Otherwise, leave this field empty.
- Select the default temporary folder as the destination for extracting the exe file (in the end-user's computer).
- The name of the executable file should be identical to the name specified in the *update.ini* file (located on the operator's HTTP server).

3.2 Saving Files on the HTTP Server

1 Save the *update.ini* file provided together with the update installation kit on the HTTP server, in the location specified in the *FTUpdate.ini* file within the installation kit supplied to the end-user. Open the file using any text editor, and edit it as follows:

To edit the *update.ini* file:

a In the [Settings] section, list all the versions that can be upgraded and the version to which to upgrade them, as follows:

Example 1
[Settings]
1.0=1.3
1.1=1.3
1.2=1.3

Example 1 means that versions 1.0, 1.1, and 1.2 (on the end-user's computer) will all be upgraded to version 1.3.

Example 2
[Settings]
1.0=1.1
1.1=1.2
1.2=1.3

Example 2 means that version 1.0 (on the end-user's computer) will be upgraded to version 1.1; version 1.1 will be upgraded to version 1.2; and version 1.2 will be upgraded to version 1.3. For this option to work, three update packages must be stored on the HTTP server (for versions 1.1, 1.2 and 1.3).

b You need to add a version section for each supported update version. In this section, enter the exact location of the update's executable file. The

following are examples of the version's section, corresponding to Example 1 and Example 2 above.

Example 1
[1.3]
URL=http://www.example.com/Updates/update1.3.exe
DlgTitle=WiMax update found
DlgMsg=Your WiMax application is not updated, click 'OK' to update your version.
DlgCheckBox=Don't ask me again
;DlgOKBtn=
;DlgCancelBtn=

Example 2
[1.1]
URL=http://www.example.com/Updates/update1.1.exe
DlgTitle=WiMax update found
DlgMsg=Your WiMax application is not updated, click 'OK' to update your version.
DlgCheckBox=Don't ask me again
;DlgOKBtn=
;DlgCancelBtn=

[1.2]
URL=http://www.example.com/Updates/update1.2.exe
DlgTitle=WiMax update found
DlgMsg=Your WiMax application is not updated, click 'OK' to update your version.
DlgCheckBox=Don't ask me again
;DlgOKBtn=
;DlgCancelBtn=

[1.3]
URL=http://www.example.com/Updates/update1.3.exe
DlgTitle=WiMax update found
DlgMsg=Your WiMax application is not updated, click 'OK' to update your version.
DlgCheckBox=Don't ask me again
;DlgOKBtn=
;DlgCancelBtn=

NOTE

You can also change the message that will be displayed (for example to a different language).

2 Save the self extracting executable file in the location specified in the *update.ini* file. In Example 2 above, you need to save all update files (*update1.1.exe*, *update1.2.exe*, and *update1.3.exe*) on the HTTP server.

4. Installation

4.1 Installing the WiMAX Modem Application

The executable file (Setup.exe) is available in the WiMAX Modem Installation CD. The installation wizard will guide you through the installation of the WiMAX Modem Application and the WiMAX Modem.

IMPORTANT

During configuration, the computer's IP address changes to a static IP address.

If you are using Windows 2000 or Windows XP, when you close the application the settings on your computer return to the previous settings that enable you to automatically receive an IP address from your service provider.

If you are using Windows 98 or Windws ME, an IP address (192.168.254.xxx) is added to your computer, in addition to the regular IP address provided by your internet supplier.

NOTE

When installing the WiMAX Modem Application, the USB drivers for the (Si CPE U model) are also installed.

To install the WiMAX Modem Application:

1. Run the executable program (Setup.exe). The InstallShield wizard opens.
2. Follow the instructions on the screen and click **Finish** to complete the installation of the WiMAX Modem Application. The modem installation and configuration wizard is displayed.

To install the WiMAX Modem:

1. After the application has been installed, the modem setup wizard opens. Enter the User Name and Password provided by your operator and click **Next**.

NOTE

You can also return to this stage from the start menu: *Start* > *Programs* >*WiMAX Modem* > *WiMAX Modem Installation*.

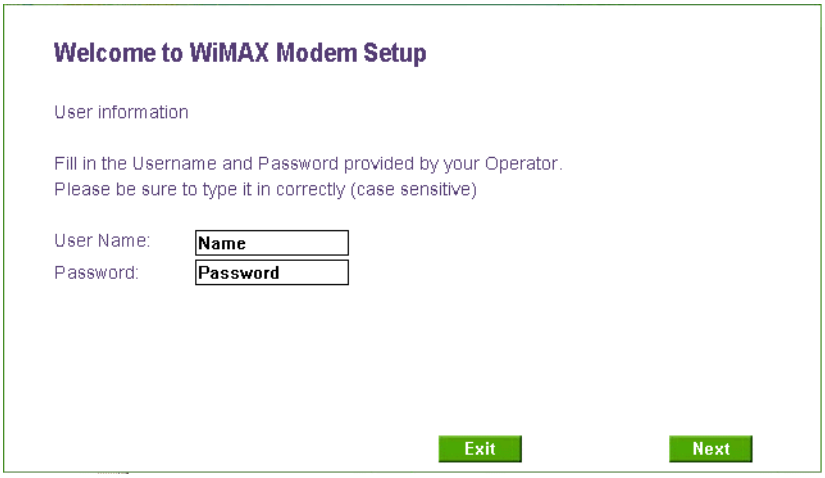

Figure 2: WiMAX Modem Setup Wizard

2 Select your location from the list and click **Next**.

NOTE

If your location is not on the list, quit the installation and contact customer support.

3 Follow the instructions on screen to connect the WiMAX modem (click **Next** at the end of each step) as follows:

a Connect the power adapter to the WiMAX Modem's POWER connector.

b Connect one end of the power cable to the power adapter and the other end to the power outlet.

c Connect one end of the data cable to the Ethernet or USB connector on the WiMAX modem and the other end to the Ethernet or USB connector on your computer. Wait a few seconds for the modem to initialize.

After connecting the modem to your computer, the automatic configuration stage begins.

NOTE

You can skip the instructions on connecting the modem and go directly to the configuration screen by clicking on **Skip**.

4 In the *Configuring your WiMAX Modem* window, click **Next** to begin the modem's automatic configuration. The modem's detection process begins. This process may take a few minutes.

IMPORTANT

If your computer is protected by a firewall, a warning message may appear. Click on Allow to continue. This is applicable to most standard firewalls. Alternatively, disable the firewall and continue with the configuration. Remember to enable the firewall after the configuration is complete.

5 When the modem's detection process is complete, the following screen should be displayed.

Figure 3: WiMAX Modem Automatic Configuration Completed Successfully

NOTE

If a red X appears anywhere, refer to "Troubleshooting" on page 34.

6 Click **Finish** to conclude the installation. The WiMAX Modem Management application icon is installed on the desktop and a message that the application needs to check for available updates is displayed.

4.2 Uninstalling the Application

Uninstalling the WiMAX Modem Application will only remove the program from your computer. It will not affect the operation of your WiMAX modem.

To uninstall the WiMAX Modem Application:

From the *Start* menu, select *Programs* > *WiMAX Modem* > *Uninstall WiMAX Modem Application*.

4.3 Updating the Application

To check for updates:

1 Close the WiMAX application.

2 From the *Start* menu, select *Programs* > *WiMAX Modem* >*Check update*.

The application checks for updates and if it finds an update file, downloads it.

5. Using the WiMAX Modem Management Application

To access the WiMAX Modem Management Application's main window:

Double-click on the WiMAX Modem Management icon on your desktop or open the application from the Windows *Start* menu (*Programs*>*WiMAX Modem*>*WiMAX Modem Management*). The *Main* window opens and an icon is added to the notification area. The icon's color reflects the status of the device:

Device is connected.

No device connection. To identify the problem, refer to the Network page (Section 5.1.1). For the corrective action required, refer to "Troubleshooting" on page 34.

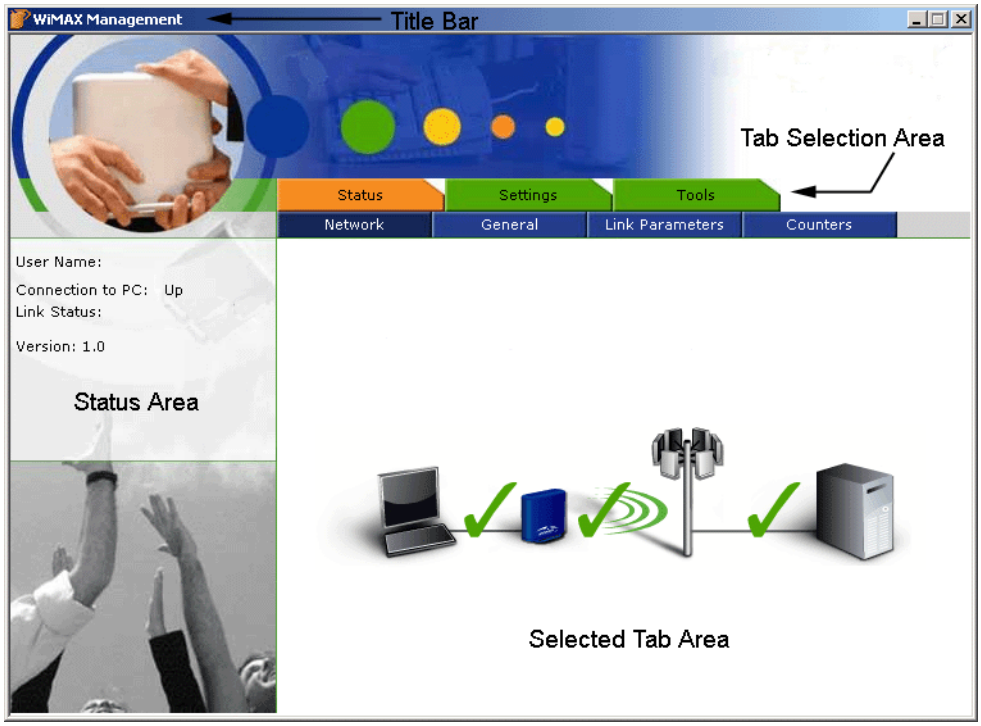

Figure 4: The Main Window

The WiMAX Modem Management Application's Main Window comprises the following components:

- Title Bar: Identifies the application's name. It also includes standard icons for minimizing or closing the application.
- Status Area: Displays general information (the user name, the status of the connection to the PC, the link status, and the application's SW version).
- Tab Selection Area: The Tab Selection Area comprises three tabs:
  - ◇ "The Status Tab" on page 25
  - ◇ "The Settings Tab" on page 29
  - ◇ "Tools Tab" on page 33

  The tabs may include a number of pages, each corresponding to a work area displaying a specific group of parameters.

- Selected Tab Area: The Selected Tab Area is a workspace that varies according to the selected tab, enabling to view status or performance data and modify specific parameters.

- Status Popups: Popup messages are displayed, notifying you of any change in the status of the WiMAX modem.

To configure the WiMAX modem, change the relevant parameters and click OK. The unit will be reset with the new parameters.

5.1 The Status Tab

The Status tab includes the following pages:

- "Network Page" on page 25
- "General Page" on page 26
- "Link Parameters Page" on page 27
- "Counters Page" on page 28

5.1.1 Network Page

The network page includes an overall graphic display of the connection. After installing the modem, the connection diagram should be as follows:

Figure 5: The Network Page

The connection diagram includes the following connections, where a green check mark (✓) indicates successful connection and a red X mark indicates a failed connection.

Connection established between the computer and the WiMAX modem.

Connection to the wireless network established.

CPE has been authorized.

If any of the connections fails, refer to "Troubleshooting" on page 34.

5.1.2 General Page

The General page displays information, such as SW and HW versions, serial number, MAC address, etc., on the WiMAX modem. For more information, refer to the *BreezeMAX CPEs Product Manual*.

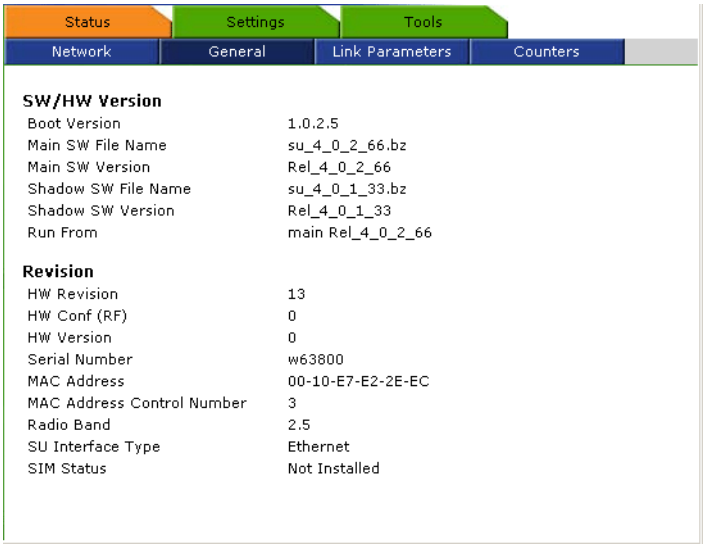

Figure 6: The General Page

5.1.3 Link Parameters Page

The Link Parameters page provides continuously updated link quality indication. For more information about each parameter, refer to the *BreezeMAX CPEs Product Manual*.

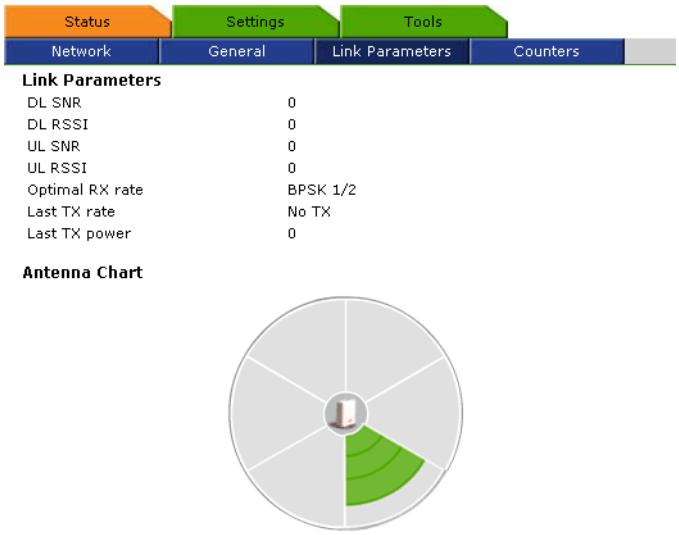

Figure 7: The Link Parameters Page

In addition to the parameters, the Link Parameters page also provides a graphical display of the link.

Figure 8: Link Chart

Each slice in the pie chart denotes an internal antenna. The chart provides and indication of the selected antenna, or when auto-select has been chosen, the currently used antenna. The numbers in Figure 8 denote the internal antenna. When all slices are lit, this means that an external antenna is used.

The graphic display also provides indication of the quality of the link. The more area covered in green, the better the link quality. Orange indicates no link.

5.1.4 Counters Page

The Counters page displays the current status of traffic counters. The counts are the accumulated number of relevant Bytes since the last unit reset or the last Counters Reset. The counters indicate the traffic at the Ethernet and Wireless ports. For information on the specific counters, refer to the *BreezeMAX CPEs Product Manual*.

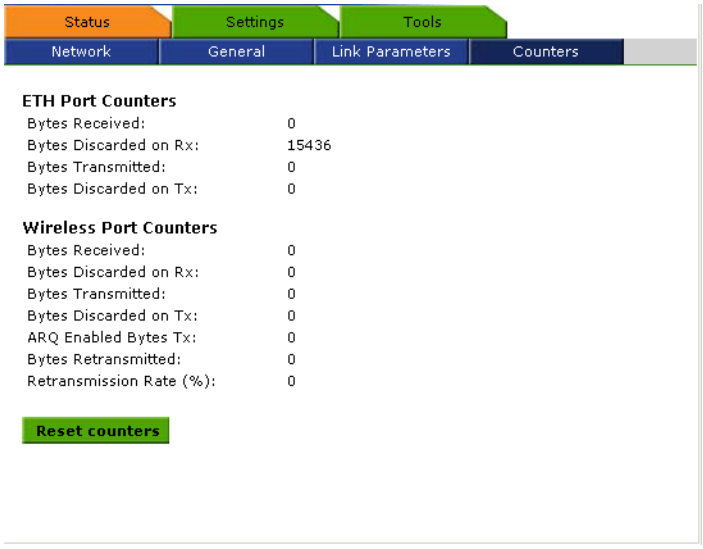

Figure 9: The Counters Page

5.2 The Settings Tab

The Settings tab includes the following sub-tabs:

- "User Information Page" on page 29
- "BS Information Page" on page 31
- "Radio Settings Page" on page 31
- "Ethernet Page (E-Model Only)" on page 32

NOTE

Any changes to the settings will be followed by a reset to the WiMAX modem upon clicking **OK**.

5.2.1 User Information Page

The User Information page enables to change user information and CPE parameters.

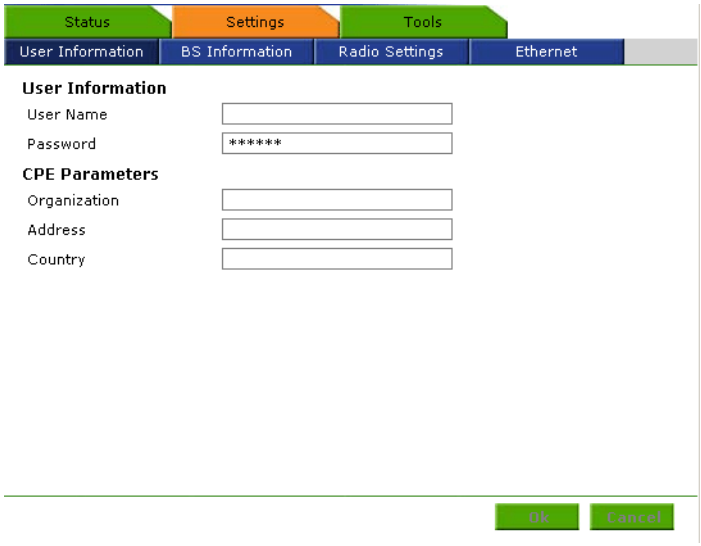

Figure 10: The User Information Page

The User Information page includes the following parameters:

Parameter	Description
User Information	
User Name	The user name. Consists of up to 32 printable characters, case sensitive.
Password	The user password used for authentication. Consists of up to 32 printable characters, case sensitive.
CPE Parameters	
Organization	Optional. The name of the organization (customer) using the unit. The Organization Name can include up to 32 printable characters.
Country	Optional. The name of the country where the unit is located. The Country name can include up to 12 printable characters.
Address	Optional. The location of the unit. The Address can include up to 32 printable characters.

IMPORTANT

For proper authentication and service provisioning, always consult with your system administrator before changing your user name and password.

5.2.2 BS Information Page

The BS Information page enables to configure the BS/AU ID parameters. For more information on the BS/AU ID parameters, refer to the BST/AU ID Parameters Menu in the *BreezeMAX CPEs Product Manual*.

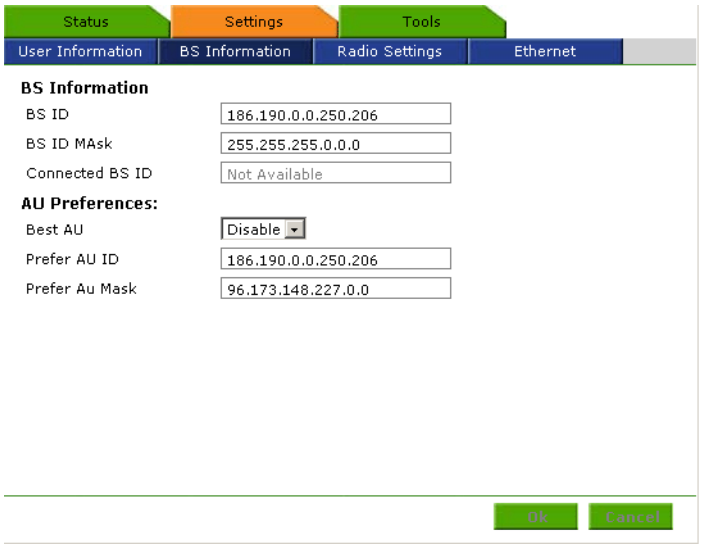

Figure 11: BS Information Page

5.2.3 Radio Settings Page

The Radio Settings page displays and enables to change the Bandwidth, Uplink Frequency (Standard Mode), Antenna Selection and Rx Attenuator parameters. For more information on the radio parameters, refer to the Radio Parameters Menu in the *BreezeMAX CPEs Product Manual*.

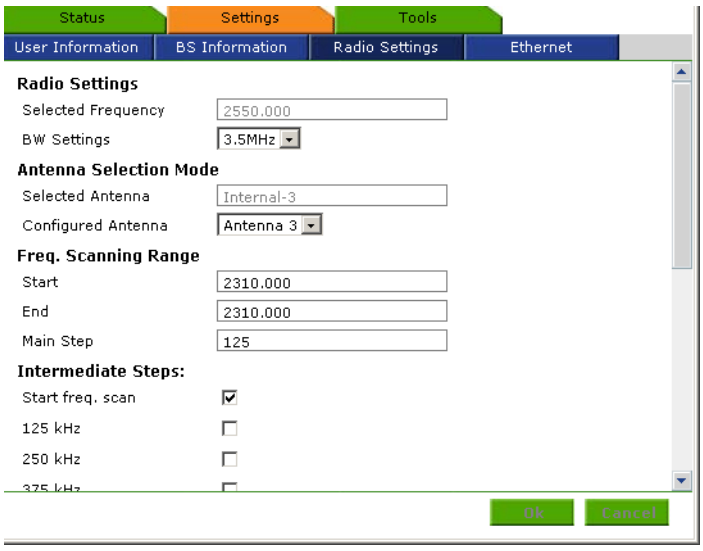

Figure 12: The Radio Settings Page

5.2.4 Ethernet Page (E-Model Only)

The Ethernet page displays and enables to change the Ethernet port settings. The Ethernet page is not applicable to U-model CPEs. For more information, refer to the Ethernet Port Operation Mode in the *BreezeMAX CPEs Product Manual*.

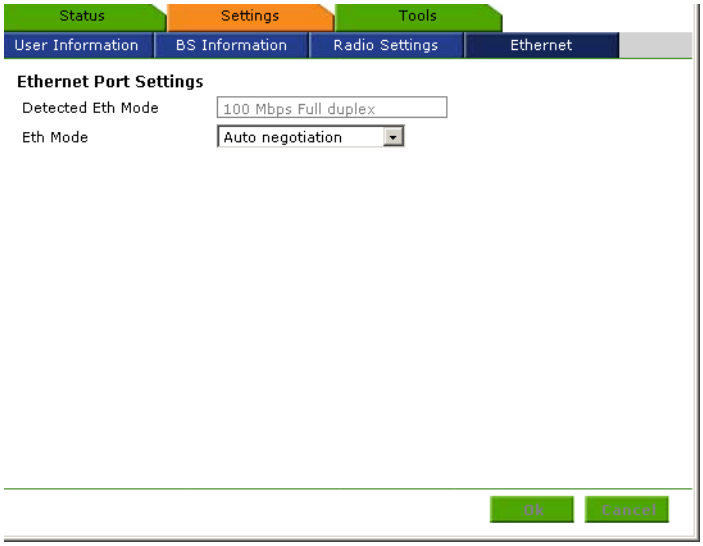

Figure 13: The Ethernet Page

5.3 Tools Tab

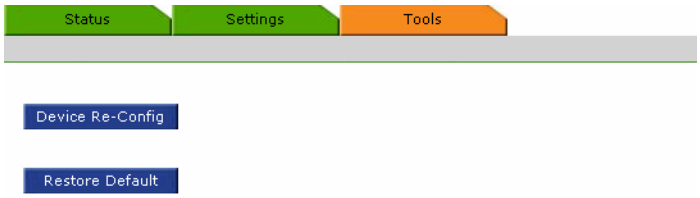

Figure 14: The Tools Tab

The Tools tab comprises the following buttons:

- Device Re-Config: Enables to re-configure the modem (see Section 4.1). After reconfiguration, the WiMAX modem will be reset.
- Restore Default: Resets the unit to factory defaults. This operation uploads the configuration files to the unit and discards all configuration changes made via the WiMAX Modem Management application. This will reset the WiMAX modem.

6. Troubleshooting

Problem and Indication	Possible Cause	Corrective Action
Connection to modem is down	1 Cables are not properly connected. 2 Network card is not properly configured.	1 Reconnect the power and Ethernet/USB cables. 2 Reconfigure the Network Interface Card via the NIC Re-config option in the Tools tab. See Section 5.3. 3 Contact your operator.
Connection to wireless network is down	1 Incorrect radio parameters (incorrect location selected). 2 The detached antenna is disconnected. 3 Interferences are blocking the signal	1 Reconfigure the modem via the Device Re-config option in the Tools tab and select your location. If your location is not on the list, contact your operator. See Section 5.3. 2 Check the connection of the detached antenna. 3 Position the antenna and modem according to the guidelines provided with the modem. 4 Contact your operator.
Authentication failed	1 Incorrect User Name or Password.	1 Reconfigure the modem via the Device Re-config option in the Tools tab and enter the User Name and Password provided by your operator. See Section 5.3 2 Contact your operator.

Appendix A. Update Checklist

The following is a list of all customized files that need to be added to each update package.

File/Folder Name	Status	Location in Package	Refer to Section in Manual	Remarks
Configuration files	❒	<html.cab>\Homelan\Config\ WiMAX\Location\	2.1	All configuration files
SetupDefs.ini	❒	\Setup\	2.2.1	Localization
UI_<Language ID>	❒	<html.cab>\Homelan\	2.2.3	Localization
UI_<Language ID>	❒	<html.cab>\Homelan\Config\ WiMAX	2.2.3	Localization
<Language ID>.xml	❒	<html.cab>\Main\xml\	2.2.3	Localization
Settings.xml	❒	<html.cab>\Main\xml\	2.3	Customized Display
FTUpdate.ini	❒	<html.cab>\add-ons\	2.4	Updates
FTAgent.xml	❒	<html.cab>\	2.4	Updates
<Update file>.exe	❒	HTTP Server (generated)	3.1	Save on the HTTP server in the location specified in *update.ini*
update.ini	❒	HTTP Server	3.2	Save on the HTTP server in the location specified in *FTUpdate.ini*
setup_logo.bmp	❒	\Setup\	2.5	Logo (Installation windows)
HL_bg.bmp	❒	<html.cab>\Homelan\Bitmap\	2.5	Logo (Configuration windows)
topbar.jpg	❒	<html.cab>\Main\Images\	2.5	Logo (Application windows)
Images	❒	--	2.5	Save any other customized image in its original location.